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Environmental Protection
Agency

Office of Pollution
Prevention and Toxics
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Pollution Prevention News

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Read PPN on the Internet!
www.epa.gov/opptintr/ChemLibPPN

EPA to Expand Chemical Right-to-Know

Initiative Will Give Public Access to More Health Data

Vice President Gore announced a major expansion of EPA's chemical right-to-know program on April 21, the eve of Earth Day, and directed the Agency to proceed with a new initiative to accelerate the collection and dissemination of information about widely used chemicals to which people, especially children, may be exposed.

The Chemical Right-to-Know Initiative (ChemRTK) builds on EPA's right-to-know philosophy and the Toxics Release Inventory (TRI), a program that has helped communities and industry work together to achieve significant reductions in pollution for more than a decade. ChemRTK will address:

▶ *High production volume (HPV) chemicals.* The Vice President challenged industry to come forward with complete test data for HPV chemicals, 43% of which currently have no testing data on basic toxicity, and EPA will propose test rules to fill remaining data gaps. An OPPT analysis issued in April reported that, of the 3,000 HPV chemicals that the U.S. imports or produces at more than 1 million pounds per year, only 7% have been fully tested for toxicity. (The Chemical Hazard Data Availability Study is available at http://www.epa.gov/opptintr/chemtest/.)

▶ *Children's health.* EPA will consider additional testing for chemicals that

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Commercial Buildings Vow to Cut CO_2

New York, Chicago Landmarks Volunteer for ENERGY STAR

Three of the world's greatest landmark buildings — the World Trade Center and the Empire State Building in New York and the Sears Tower in Chicago — will take action to reduce energy consumption and cut the pollution that contributes to global warming, EPA Administrator Carol M. Browner and Department of Energy (DOE) Secretary Federico Peña announced in April.

The effort is part of EPA's ENERGY STAR Buildings Program, which creates voluntary partnerships with owners of commercial buildings to save energy and combat global warming.

Commercial buildings in the United States account for 19 percent of greenhouse gases through their use of energy. If all commercial office buildings in this country follow the lead of the three landmark buildings and other partners in this program, energy consumption will be cut 30 percent and $25 billion per year could be saved. EPA estimates that carbon dioxide emissions could be reduced by 130 million tons by 2010.

EPA and DOE are jointly developing and managing the ENERGY STAR Buildings Program, which encourages voluntary use of more efficient products ranging from new lighting to improved heating and cooling systems. For example, the World Trade Center already has converted 23,000 light fixtures for an annual savings of $1 million.

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News & Notes

"CAP AND TRADE" PROPOSED FOR NITROGEN OXIDE EMISSIONS

EPA proposed an emissions trading program in April to help protect public health from air pollution in the eastern U.S. The program is part of a regional strategy for cost-effectively meeting EPA's new public-health standard for ozone, or smog, by reducing by 35 percent the nitrogen oxide pollution from "upwind" states.

The proposal is on the Internet at http://www.epa.gov/ttn/oarpg/ramain.html under "Recent Actions."

The program, called "cap and trade," gives industries flexibility in choosing pollution controls by allowing them to buy and sell market-based "credits" to reduce their nitrogen oxide emissions.

In November 1997, EPA proposed that 22 states and Washington, D.C. reduce emissions of air pollution that blow across state boundaries. The proposed emissions trading program would allow each jurisdiction to establish a cap on nitrogen oxide emissions. Power plants and other sources that reduce emissions in amounts greater than required would be allowed to sell credits to facilities that cannot reduce emissions as quickly or as cost-effectively. A similar market-based program has proven successful in reducing sulfur dioxide to control acid rain.

For more information, contact Kimber Scavo of EPA's Air Program at 919-541-3354 or e-mail scavo.kimber@epa.gov.

GLOBAL STANDARDS TO TARGET VEHICLES

The United States, Japan, and the European Community have agreed to cooperate in regulating the performance and design of motor vehicles.

The Agreement on Global Technical Regulations, announced on March 12, establishes a process that will decrease environmental pollution, increase energy efficiency, and improve the safety and anti-theft performance of vehicles, equipment, and related components through globally uniform governmental technical regulations.

"The United States spearheaded this move, which will open the door for every United Nations member nation—and selected non-members—to instill uniformity in the design of testing protocols," explained Ken Feith, senior policy advisor in EPA's Office of Air and Radiation.

Feith, a member of the U.S. team working on the negotiations, said a key purpose of the agreement is to promote the adoption of higher standards in developing countries. "We believe that the only way we can persuade developing countries and other countries that lack the resources and intrinsic knowledge to implement pollution prevention on their own is to provide test protocols and performance standards as a resource to them, at no cost. We have had inquiries from throughout the Pacific Rim, southeast Africa, and elsewhere."

The agreement, under development for 18 months, is being established under the United Nations' Economic Commission for Europe and administered by its Working Party on the Construction of Vehicles. The agreement calls for regulatory activities to be carried out openly with objective consideration of best available technology, public benefits, and cost effectiveness. Final approval is expected in June.

For more information, access the agreement at http://www.itu.ch/itudoc/un/editrans/wp29.html or contact Ken Feith at 202-260-4996 or feith.ken@epamail.epa.gov.

ANIMAL WASTE RUNOFF STRATEGY ANNOUNCED

As part of the Clinton Administration's new Clean Water Action Plan, EPA has released a draft strategy to minimize environmental impacts from animal feeding operations (AFOs), a major source of water pollution. The strategy calls for new water pollution control requirements, immediate inspections, and more aggressive enforcement to reduce animal waste runoff into waterways. Ideas from the EPA strategy will be incorporated into a joint strategy with the U.S. Department of Agriculture, a draft of which is expected July 1.

For more information, call Will Hall at 202-260-1458 or Jeff Lape at 202-260- 6057.

Editorial Staff:

Maureen Eichelberger, *Editor*
Gilah Langner
Suzanne Harris
Jon Readey
Free Hand Press, *Layout*

To be added to or removed from our mailing list, please write:
Pollution Prevention News
U.S. EPA (MC7409)
401 M Street SW
Washington, DC 20460

or fax to:
Pollution Prevention News, 202-260-2219

or e-mail to:
eichelberger.maureen@epamail.epa.gov

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P2 Goes to College

National Wildlife Federation Tallies 'Green Return' on Nation's Campuses

Colleges and universities are achieving big savings through environmental initiatives, many of which concentrate on pollution prevention.

This is the message of *Green Investment, Green Return: How Practical Conservation Projects Save Millions on America's Campuses*, a report released by the National Wildlife Federation (NWF) in March.

"This study proves that you don't have to choose between a healthy environment and healthy bottom line," said NWF President Mark Van Putten. "The fact is, the actions being taken on these campuses are actually improving the environment *and* the financial condition of the institution, often in very dramatic ways."

Consider, for example:

Walter Simpson oversees a vast program at SUNY-Buffalo.

- Over $9 million is being saved annually at the **State University of New York (SUNY)-Buffalo,** through a variety of creative energy-saving strategies that also prevent the emission of 63.4 million pounds of carbon dioxide, 140,000 pounds of sulfur dioxide, and 214,000 pounds of nitrous oxide.

  Energy efficiency is both an economic goal and a moral imperative at SUNY-Buffalo. The person responsible for much of the strategy and implementation is Walter Simpson, the campus's long-time Energy Officer. Simpson has overseen more than 300 energy-related retrofit projects over the past 16 years, including the installation of efficient lights and motors, weatherizing buildings and modifying heating, ventilating, and air conditioning systems. SUNY estimates the savings resulting from these activities at $6 million per year. Another $3 million in savings was achieved through a comprehensive energy retrofit.

- Over $3 million is being saved each year at **Cornell University** by "getting students and staff out of the car," which also prevents emission of 6.7 million pounds of carbon monoxide.

  Cornell's Transportation Demand Management Program, created in 1991 to address a 2,500-parking space shortfall, proposed a number of alternatives to transportation by single-occupant vehicles. These included the OmniRide bus pass system, under which staff and faculty can ride city and county buses anytime for free, and a RideShare program that offers incentives for high-occupancy vehicles. Approximately 3,000 faculty and staff—one-third of the total—participate in some aspect of the program.

Brevard (FL) Community College worker adjusts energy controls.

- Annual savings of more than $2 million at **Brevard Community College** (in northeastern Florida near the Kennedy Space Center), which Florida Power & Light dubbed "the energy miracle" for saving 257 million kilowatt hours of electricity.

  Brevard has doubled its building space since 1982 but has kept energy usage under control through measures such as the replacement of all fluorescent light fixtures with 10,000 energy-efficient T-8 fixtures. The college saves money on air conditioning and reduces peak electrical demand by using a system that chills water at night when electric rates are lower, then circulates the cold water during the day.

> "The actions being taken on these campuses are actually improving the environment *and* the financial condition of the institution."
>
> —NWF President Mark Van Putten

Continued on next page

P2 Goes to College

Where Campuses Found Savings

Annual savings for 23 campus conservation projects, as reported in *Green Investment, Green Return*

Energy conservation	$11,517,500
Transportation	4,123,000
Recycling	327,000
Water conservation	280,800
Other *(hazardous waste management, composting, re-use and re-distribution, dining services)*	$507,200
Total Savings	**$16,755,500**

- **Columbia University** has reduced its $1 million annual water expenditure by approximately 25 percent through one of the largest water conservation upgrades ever attempted at a university. The 1996 upgrades focused on domestic water, including toilets, showerheads and faucet aerators. Columbia undertook the project because of the significant savings, estimated at $235,000 per year, and the short payback period. Even with the cost of hiring an outside firm to design and implement all aspects of the work, the payback was only 1.8 years. The project's annual savings have helped to finance energy conservation projects with longer payback periods.

Other money-saving programs:

- By promoting bus passes, the University of Colorado in Boulder eliminated the need for more parking lots at an annual savings of $1 million.

- The University of Wisconsin-Madison earns $241,800 a year by selling surplus office, classroom and laboratory equipment that otherwise might have ended up in a landfill. By offering refillable mugs in dining halls, the university saves $11,400 a year on disposable cups.

- Dartmouth College in Hanover, NH, uses composted kitchen waste to fertilize campus gardens at an annual savings of $10,000.

- Elizabethtown (PA) College undertook a major replacement of lighting fixtures and other equipment for a net annual savings of nearly a quarter of a million dollars. The $1.8 million project is financed by a tax-free bond issue, brokered through a performance contract underwritten by a major energy consulting firm. Recognizing the sure-fire savings linked to the project, the energy firm helped overcome administration skepticism by guaranteeing the 10-year payback of the borrowed money.

Green Investment, Green Return, sponsored by NWF's Campus Ecology program, highlights 23 cost-saving conservation initiatives at 15 public and private post-secondary institutions across the United States. Total savings were $16.8 million.

"The implications of this study are incredible," Van Putten said. "When the average annual campus savings are multiplied across the remaining 3,685 campuses nationwide, the potential for savings is in the billions. This represents real benefits for the economy and the environment."

NWF points out that college campuses, as microcosms of society, have great potential for making positive impacts through even simple, common-sense conservation practices such as recycling, using native plants in landscaping, running atmospherically safe transportation systems, creating fertilizer from kitchen food waste, and maintaining university vehicles with re-refined motor oil.

"Many of our current and future leaders are on these campuses," said Julian Keniry, NWF's Manager of Campus Outreach, who co-authored the report with David J. Eagan, Ph.D., of the University of Wisconsin. "They will be the ones who make decisions that affect the whole planet. What better place to learn how to be financially and environmentally responsible than in college?"

Details of report findings can be viewed on the NWF Web page at http://www.nwf.org/. For more information, contact Kay Lybrand at 703-790-4085.

P2 Goes to College

PARTNERSHIP INTRODUCES FACULTY TO P2 CONCEPTS, INSTRUCTIONAL TOOLS

An alliance between EPA's Design for the Environment (DfE) program and a not-for-profit organization called Partnership for Environmental Technology Education (PETE) is introducing pollution prevention concepts to community and technical college faculty nationwide.

PETE is a public-private partnership among academia, business and industry, and government. The organization is composed of six regional partnerships that include over 600 technical schools, community colleges and universities. Last year, PETE conducted regional workshops to introduce new curricula and videos and conducted other sessions to present P2 and DfE concepts to automotive repair instructors and bring chemistry instructors up to date on instructional techniques using small scale or micro-scale chemistry.

In the program's second year, PETE and DfE are focusing on the printing industry, auto and fleet maintenance, and garment care.

For more information, contact Dave Boon, PETE/DfE Program Manager, at 303-404-5259 or Carol Hetfield at 202-260-1745 or at hetfield.carol@epamail.epa.gov.

P2-MINDED STUDENTS GRADE THEIR CAMPUSES

At least 200 campuses have conducted comprehensive environmental audits since 1990, according to the National Wildlife Federation, which put some of the best examples onto the Web (www.nwf.org). One of the most specific is from Tulane University in New Orleans, LA, whose "Green Card for the Green Wave" gave the university an F for procurement of cleaning supplies and pesticides ("no environmental or safety considerations"), a C for buildings (new buildings "OK"; old buildings "poor, no retrofitting plans"), and an A- for lights ("upgrading program underway").

At Rice University, students complete a campus environmental audit as part of their coursework in an environmental studies sequence. They also come up with environmental designs for a hypothetical new residential college.

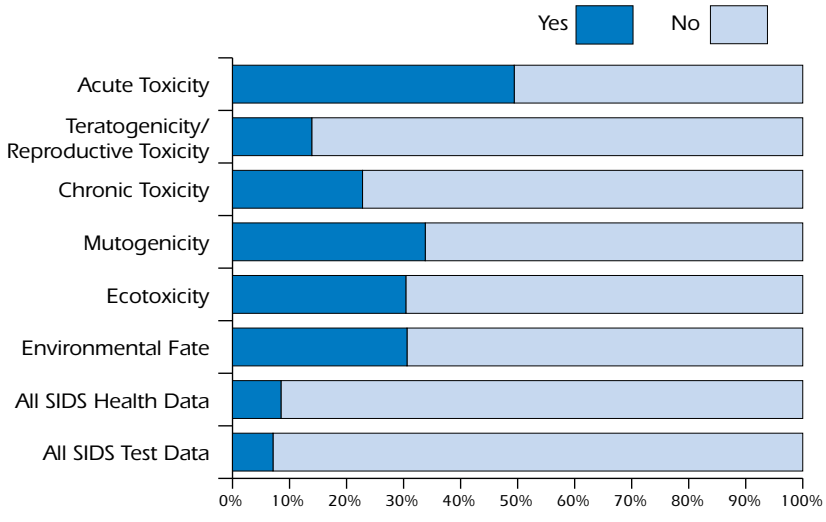
Right-to-Know

Continued from page 1

children are most likely to encounter. Working under President Clinton's 1997 Executive Order on Children's Health, EPA will identify chemicals that children are disproportionately exposed to and propose additional testing where necessary. Voluntary measures will also be considered.

▶ *Persistent chemicals that accumulate in body tissue.* EPA will review persistent and bioaccumulative toxics (PBTs) and determine whether they should be subject to TRI reporting or lower reporting thresholds. Certain PBTs are already on the TRI, including mercury, PCBs, and lead. In addition, EPA will propose to add dioxins, octochlorostyrene, and other chemicals appearing on the U.S.-Canada Binational Level 1 list.

Hazard Data Available for U.S. High Production Volume Chemicals



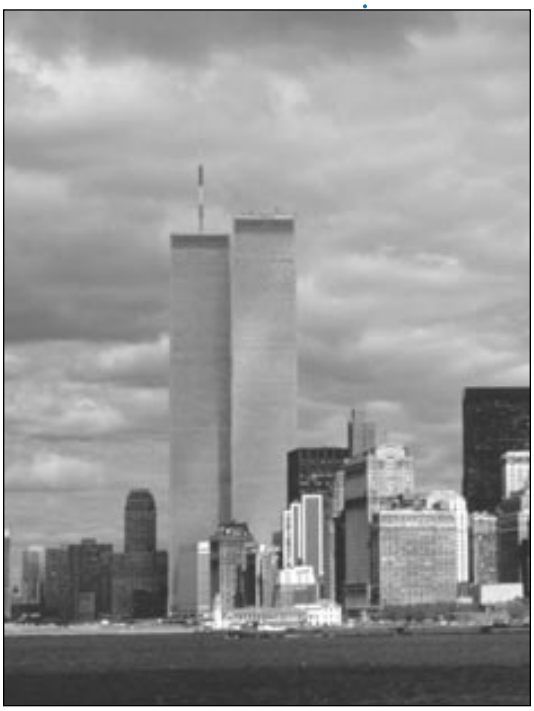
SIDS: Screening Information Data Set

ENERGY STAR Programs

Buildings to Cut CO_2

Continued from page 1

Building owners who want to receive an ENERGY STAR label seek a charter application and begin tracking their utility consumption and related criteria to benchmark their buildings' energy performance against that of other buildings of similar type. DOE and EPA typically award ENERGY STAR Building labels to those in the upper 25 percent of energy efficiency.



World Trade Center in New York

Other landmark commercial buildings have signed on to launch the new program in the following cities:

New York: 4 Times Square building, Conde Nast building, Foley Square Federal Office Building; Time Life building, McGraw-Hill building, American Express Tower, 1211 Avenue of the Americas, 1251 Avenue of the Americas, and the New York Information Technology Center;

San Francisco: the Transamerica Pyramid;

Nashville: MagneTek headquarters;

St. Paul, MN: the St. Paul Facility-Trane Co. building;

Los Angeles: Westwood Gateway I and Westwood Gateway II;

Irvine, CA: Jamboree Centers;

Boston: the Lafayette Corporate Center;

Dallas: LBJ Financial Centers, Rolex building, Centex building, Jones Day Reavis & Pogue International Center, International Center Phase IV;

Beverly Hills: Rolex building and Phase II building;

Richardson, TX: Chase Bank building;

Plano, TX: Harrington Place; and

Philadelphia: Wannamaker building and 1528 Walnut Street.

EPA expects that thousands of additional buildings will be joining the program over the next several years.

Engineering Foundation Conference to Focus on Commercial Buildings

An Engineering Foundation conference will explore how problem solving and decision making tools can help professionals involved in pollution prevention communicate with one another more effectively. The conference, "Improving the Practice of Pollution Prevention," will focus specifically on managing commercial buildings. It will take place August 16-21 in Crested Butte, CO.

Tools to be discussed will include process mapping, Pareto analysis, cause and effect diagrams, brainstorming, bubble-up/bubble-down, criteria matrices, and action plans. Conference participants will work on cases that address prevention in a wide variety of contexts and will present their results in plenary sessions for general comment.

The Engineering Foundation is seeking funding to make the conference available via Internet. An e-mail listserver and web-based archive are being used now to develop and discuss the cases that will be analyzed by conference participants. For information about participating in the listserver and the conference, go to the Engineering Foundation's web site, http://www.engfnd.org/.

Information about the conference is also available directly at 212-705-7836 or by sending e-mail to engfnd@aol.com.

ENERGY STAR Programs

ENERGY STAR Homes® a Haven for Efficiency; Partners Recognized

EPA's ENERGY STAR Homes Program currently has more than 500 builder and developer partners in 47 states. An estimated 10,000 ENERGY STAR Homes will have been constructed by the end of 1998. Now completing its third year, ENERGY STAR Homes is a voluntary program encouraging builders to construct energy-efficient homes. In turn, EPA allows them to use the ENERGY STAR logo and provides marketing support, sales training, technical support and links to preferred financing.

The advantage of an ENERGY STAR Home goes beyond the virtue of being environmentally responsible. Energy used in homes accounts for over 20 percent of all air pollution emissions in the country. ENERGY STAR Homes deliver at least 30 percent greater energy efficiency than homes built to the national Model Energy Code. Monthly energy savings typically exceed what the additional energy features add to mortgage payments.

EPA encourages buyers to seek out and purchase ENERGY STAR Homes by pointing out the following additional advantages:

- With their savings, buyers can afford more upgrades;
- Buyers can qualify for special mortgages;
- Buyers are making a good investment;
- ENERGY STAR Homes are more comfortable, quieter, and have greater assurance of good indoor air quality.

ENERGY STAR Homes also meet builders' business objectives. By offering more comfortable, quieter interiors and quality construction for a lower total outlay each month, builders can differentiate themselves in the marketplace and improve customer satisfaction.

This Year's Winners ...

EPA announced nine winners of 1998 ENERGY STAR Homes Builder and Ally Awards in March. The 1998 ENERGY STAR Homes Builder Awards will be presented in October to:

- Southlake Development, Inc. (Hobart, IN)
- Watt Homes—Utah (Salt Lake City, UT)
- Best Homes (Indianapolis, IN)
- Pulte Homes—Arizona (Phoenix, AZ)
- Palm Harbor Homes, Inc. (Dallas, TX)

EPA presented the 1998 ENERGY STAR Homes Ally Awards in March to:

- **Energy Rated Homes of Indiana** (Indianapolis, IN)
  Home rating/technical support provider to ENERGY STAR Builders.

- **Andersen Corporation** (Bayport, MN)
  Window manufacturer recognized for conserving natural resources through reduction, reclamation, reuse, and recycling of materials.

- **Gainesville Regional Utilities** (Gainesville, FL)
  Utility company that developed a well-attended ENERGY STAR Homes Day.

- **Vermont Star Homes** (Burlington, VT)
  A collaborative effort among Burlington Electric Department, Central Vermont Public Service Corporation, Citizens Utilities Company, Green Mountain Power, Vermont Electric Cooperative, and Vermont Gas Systems. Winner for best promotions contest/most creative use of media.

For more information, or to receive an ENERGY STAR Builder and/or Ally packet, call the Energy Star Hotline at 888-STAR-YES (888-782-7937).

EPA DOE
SAVING THE EARTH. SAVING YOUR MONEY.

Green Federal Facilities

Pentagon Paves Parking Lots with Environmentally Preferable Products

The Pentagon's parking lots contain 12,000 spaces and occupy 67 acres. It takes a lot of asphalt to keep them up—also traffic paint, reinforced concrete materials, and numerous other products.

In June 1997, the Department of Defense (DOD) awarded a five-year, $1 million per year contract to maintain and repair the parking lots as well as 10 miles of access roads at various facilities in the Washington, D.C. area.

DOD and EPA collaborated on a pilot project to minimize adverse environmental impact of this repair work through Environmentally Preferable Purchasing.

The contract developed by DOD and EPA promotes the use of products with positive environmental attributes. The work must meet price and performance requirements, but the contractor can earn a price differential by using products with environmentally desirable attributes, such as low levels of volatile organic compounds and high percentages of recycled content.

In developing the contract, DOD and EPA used publicly available information from sources such as the Harris Directory, Thomas Directory, and the National Park Service's Sustainable Design and Construction Database to identify so-called "baseline" environmental attributes for 20 product categories representing 90 percent of the materials to be used.

The contractor is eligible for a two percent price differential for each baseline environmental attribute included in the products it uses. If DOD approves, the contractor can also receive a price differential for identifying and using products and processes with environmentally desirable characteristics beyond the baseline.

One year into the contract, the winner, D-M&S Inc. of Woodstock, MD, has identified several innovative products and a new process that significantly improve environmental quality while meeting or sometimes exceeding performance requirements.

Detailed information about this EPP pilot project is contained in the case study, Paving the Road to Success *(EPA #742-R-97-007). Copies of this and other EPP case studies and guidance can be ordered from Pollution Prevention Information Clearinghouse, tel: 202-260-1023, fax: 202-260-4659, ppic@epamail.epa.gov. For additional information, contact Ruth Heikkinen at 202-260-1803 or at heikkinen.ruth@epamail.epa.gov.*

Software Makes It Easier To Decide What to Buy

As part of its Environmentally Preferable Purchasing (EPP) program, EPA has contributed to the development of software for use in identifying products that will reduce energy use, improve air quality, and in other ways improve the environmental attributes of buildings. Building for Economic and Environmental Sustainability, or BEES, was developed under a federal interagency agreement by the National Institute of Standards and Technology. EPA provided funding in hopes that the software will help federal facility managers make purchasing decisions based on both cost and environmental considerations. BEES runs on a Windows-based system and requires 32 megabytes of RAM and 10 megabytes of available disk space. To purchase BEES, contact the U.S. Green Building Council, 90 New Montgomery St., Suite 1001, San Francisco, Calif. 94105, 415-543-3001, or order from the Council's Internet site at http://www.usgbc.org/.

Green Federal Facilities

Fort Carson Reduces HAZMAT Disposal, Wins Secretary's Award For P2 Program

Secretary of Defense William Cohen awarded the Secretary's Environmental Security Award in April to Fort Carson, an Army installation south of Colorado Springs, for a broad array of pollution prevention efforts.

"P2 is stressed at all levels of the military/civilian hierarchy," wrote the Fort Carson pollution prevention team, headed by civilian Stephen Snyder. "Environmental Protection Officers and NCOs and Building Energy Monitors are introduced to P2 in training and asked to submit their ideas to reduce waste/energy usage in their respective work areas. Most often this level is where the best ideas are generated."

Fort Carson's Pollution Prevention Division reports progress in hazardous and solid waste reduction, energy efficiency, and recycling (see box).

Specific accomplishments in hazardous waste reduction range from simple material substitution, such as using sand in place of snow-melting chemicals, to the establishment of a HAZMAT Pharmacy.

Military bases use such pharmacies to distribute hazardous materials to the user in the amount needed, a departure from the traditional supply system, which simply orders and distributes materials.

One of the biggest challenges facing Fort Carson's P2 staff over the past year has been tracking and reducing the procurement of hazardous materials. An estimated 50 percent of hazardous waste disposal is of unopened, expired materials, a percentage that P2 staff hope to decrease by establishing the Pharmacy and focusing attention on proper inventory management. For example, over 1,700 five-gallon cans of expired paint were given extension dates and made available for use or relocation. More than 2,000 gallons of sulfuric acid were given to the Bureau of Reclamation in Leadville, CO.

The P2 program also emphasizes energy reduction. During FY94-96, Fort Carson committed a total of $12 million to energy projects, including a utility control system for the entire post, exterior installation on barracks, boiler replacements, and a number of smaller projects including photovoltaic (PV) irrigation and monitoring as well as installation of a solar heating wall. Fort Carson has over 60 lighting, environmental monitoring, and other systems that operate using PV power.

Under an agronomy program called "Trees for FC," units are encouraged to use trees and shrubs for erosion control, wildlife habitat, natural wind breaks/shelters, and for energy conservation.

Recycling has increased steadily since that program began in FY92. Materials processed include cardboard, white paper, computer paper, colored paper, plastics, bimetal and aluminum cans, and tab cards. Not only does the Fort Carson recycling center handle family housing, the commissary, and pick-up at military units, but support is also extended to the U.S. Air Force Space Command and the Federal Bureau of Prisons, located 40 miles to the south. As a direct result of recycling, the installation reports $114,000 in landfill cost avoidance last fiscal year and over $200,000 in revenue from the sale of recyclable material.

For more information contact Stephen Snyder at 719-526-1684 or snyders@carson-emh1.army.mil.

Thirty of these photovoltaic pumps at Fort Carson direct water into a system of shallow ponds, which serve as wetlands and contribute to the area's ecological diversity.

Targets for the Year 2000

Goals:	Status:
Hazardous waste reduced by 70% from FY94	40%
Solid waste reduced by 50% from FY93	38%
Energy efficiency improved 25% from FY85	18%
Pesticide use reduced by 50% from FY93	18%
Recycling increased by 50% from FY92	71%
Water usage reduced by 30% from FY94	28%
Develop a sound P2 training program	Achieved
Inform all levels of command on P2 Program	Achieved
Establish a working group throughout Directorates to set P2 goals	Achieved

Green Federal Facilities

DOE, EPA Support P2 at Brookhaven

EPA and the Department of Energy (DOE) signed an agreement in March to promote pollution prevention and sustained compliance with environmental safety regulations at the Brookhaven National Laboratory in Upton, Long Island.

Under the agreement, the first of its kind, DOE will support comprehensive evaluations of environmental processes and activities at Brookhaven. The laboratory will also develop a program-by-program blueprint in pollution prevention, waste minimization, and compliance through new and expanded initiatives.

EPA Regional Administrator Jeanne M. Fox and Martha Krebs, DOE Director of the Office of Energy Research, signed the voluntary Memorandum of Agreement. "The agreement is the most recent action on Secretary (Federico) Peña's May 1997 commitment to ensure that the protection of public health and the environment will never again take a back seat to science at the facility," Fox said.

Earlier in March, EPA cited DOE and Associated Universities, Inc., the contractor formerly responsible for operating the facility, for violations of the Safe Drinking Water Act, Clean Air Act, Resource Conservation and Recovery Act and the Toxic Substances Control Act. EPA is also investigating and remediating the tritium plume from the High Flux Beam Reactor, discovered in January 1997, and overseeing Superfund cleanups.

For more information contact Richard Cahill, tel: 212-637-3666, fax: 212-637-5046, or e-mail: cahill.richard@epamail.epa.gov.

New Tools Turn Buildings Green

Government agencies are finding a growing range of innovative ways to build pollution prevention into new construction and renovation projects. At the Resource Efficient Federal Buildings Symposium in April, speakers presented case histories of successful experiences at Federal, state and local levels, including:

▶ Application of alternative energy, energy efficiency, and water conservation technologies.

▶ Use of standard guides and models for selecting resource-efficient materials which can result in improved indoor air quality without increasing project costs. Symposium participants received copies of the Guide to Resource Efficient Building Elements published by the Center for Resourceful Building Technologies in Missoula, MT, and heard presentations on Air Force and Army design guidelines for buildings.

▶ Disassembly of buildings so the materials can be re-used. For example, workers disassembling World War II barracks at the Presidio in San Francisco found valuable Port Orford cedar boards, which are no longer available.

Obstacles to sustainable design and construction persist, however. Participants commented that architects and civil engineers often regard environmental issues as someone else's responsibility. They also pointed out that when construction funds come from a different source than funding for building operations, it can be difficult to convince design personnel to spend up-front money to reap long-term benefits. Speakers noted that construction projects need to be monitored on a daily basis to assure that green design is not shortchanged by carelessness or last-minute substitutions.

The symposium, conducted at the U.S. Air Force Academy in Colorado Springs, was sponsored by the Department of Energy Federal Energy Management Program, EPA Federal Facilities Enforcement Office, EPA Region VIII, the Air Force Center for Environmental Excellence and the Air Force Academy Civil Engineering Division and Faculty.

Summaries of all presentations are scheduled to be available after June 1 on the symposium web site, http://www.eeba.org/refb. *For more information, contact Dianne Thiel, EPA Region VIII, at 303-312-6389.*

In the States

Success Stories Show How 20 Firms Bring Nature, Economy Into Balance

Washington State is convinced that business and the environment can find a harmonious balance. To prove the point, the State's Department of Community Trade and Economic Development recently documented 20 success stories in *Finding the Balance: Economic Prosperity & Environmental Progress — Volume II.*

The report, funded in part by EPA, follows up on the popular Volume I published in 1996. Among the 20 success stories are some of the biggest names in corporate America, including Ikea, Intel, Starbucks, and Boeing. The stories summarized here show how leaders in fields as diverse as cargo containers and ammunition are becoming more environmentally responsible while improving efficiency and profitability.

Container-Care International

…specializes in the storage, cleaning, maintenance, and repair of containers used in the Seattle cargo shipping trade.

The company first became aware of the liabilities associated with waste handling when it was named as a potentially liable party in a waste disposal dispute. Although the case resulted in a *de minimis* settlement, Container-Care hired a consultant to study its waste streams.

The company installed a wastewater recovery and recycling system that eliminated all water discharges, reducing water bills and mitigating water discharge fees.

Container-Care also instituted low-tech solutions for painting and cleaning containers. It reduced emissions in larger paint jobs by switching to a high volume/low pressure spray gun and an enclosed spray gun cleaning system using a non-hazardous cleaning solvent. The technique cut down on use of paint thinner, and thus VOC emissions.

Through such changes, Container-Care reduced the generation of hazardous waste from 18,235 pounds in 1992 to 3,949 pounds in 1995, decreased costs, and increased profits.

Rainier Ballistics Corporation

…of Tacoma, a manufacturer of sport shooting projectiles, weathered a "dirty" image for waste water standards from 1991 to 1994, then worked with state and local regulators to redesign the electroplating process. Examples include:

- Instead of discharging alkaline wastewater from its initial soaking operation to avoid heavy buildups of chemicals, the company purchased an evaporation system, which completely eliminated wastewater generation.
- Rainier switched from an all-chemical "brightening process" used for cleaning parts and giving a shiny appearance to a cleaning mixture of ground walnuts and corncobs which reduces chemical usage by 50%.
- Formerly, Rainier treated its products in a carbon-filtered bath once every month. By modifying the chemical content of the bath, it reduced treatment to once every six months, cutting waste levels by 80 percent.

These and other changes reduced the company's wastewater generation from 5,000 gallons per week to about 800 gallons and reduced its use of chemicals by 75 percent. Since 1994, Rainier has saved more than $200,000 on treatment costs alone.

Can other companies do as well? Washington's Department of Ecology thinks so. It sponsors a Toxics Reduction Engineer Exchange (TREE) which offers small and medium sized businesses free engineering assistance and a survey of relevant technology options.

For more information, contact Michael Johnson, Washington Dept. of Ecology, P.O. Box 47600, Olympia, WA, tel: 360-407-6338, e-mail: mjoh461@ecy.wa.gov /.

To view the report on the Internet, go to www.wa.gov/cted/success2/.

Calendar

DATE/SITE	EVENT	SPONSOR	CONTACT	E-MAIL/WWW
July 1 Dallas, TX	Federal Facility Environmental Seminar on Indoor Environment	EPA Region VI	Tel: 214-665-7550	http://www.epa.gov/earth1r6
July 2 Dallas, TX	Federal Facility Environmental Seminar on the Clean Air Act	EPA Region VI	Tel: 214-665-7160	http://www.epa.gov/earth1r6
July 7-10 Washington, DC	4th International Interdisciplinary Conference on the Environment	Interdisciplinary Environmental Association	Tel: 508-767-7557 Fax: 508-767-7382	dkantar@eve.assumption.edu
July 16-17 Hilton Head, SC	ISO 14000 Environmental Management Standards: How To Develop an EMS That Meets the Standards	Government Institutes	Tel: 301-921-2345 Fax: 301-921-0373	giinfo@govinst.com
July 27 - August 1 Basel, Switzerland	First International Week for a Sustainable Energy Future	SUN21	Tel: +41 61 271 0389 Fax: +41 61 271 1083	info21@sun21.ch http://www.sun21.ch
August 3-5 Bellevue, WA	Energy '98: Breaking the Barriers– "You Have the Power"	US DOE Federal Energy Management Program (FEMP)	Tel: 800-960-2242 Extension 132	fecnw@tainc.com
August 23-28 Pacific Grove, CA	1998 ACEEE Summer Study on Energy Efficiency	ACEEE, NYSERDA, EPA, DOE	Tel: 202-429-8873 Fax: 202-429-0193	http://aceee.org
August 25-28 San Antonio, TX	Third Annual Joint Service Pollution Prevention Conference and Exhibition	Headquarters Air Force Center for Environmental Excellence, National Defense Industrial Association (formerly ADPA/NSIA)	Christy Kline or Christin Berry Tel: 703-522-1820 Fax: 703-522-1885	ckline@ndia.org or cberry@ndia.org
September 14-15 Leeds, England	European Environment Conference	ERP Environment	Tel: 44-1274-530408 Fax: 44-1274-530409	
October 28-30 Lisbon, Portugal	European Roundtable on Cleaner Production & Pre-Conference For African Countries	ERCP, INETI-ITA	Fax: +351 1 7154084 http://www.ineti.pt	ercp98@ita.ineti.pt
November 15-18 Rome, Italy	Partnership and Leadership: 7th International Conference of the Greening of Industry Network	Centre for Clean Technology and Environmental Policy	Tel: +31 53 489 3203 Fax: +31 53 489 4850	T.J.N.M.deBruijn@ CSTM.utwente.nl

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